

**METHOD OF RENAMING REGISTERS IN REGISTER FILE
AND MICROPROCESSOR THEREOF**

Abstract of the Disclosure

A microprocessor for processing instructions comprises multiple clusters for

- 5 receiving the instructions, each of the clusters having a plurality of functional units for executing the instructions, multiple register sub-files each having multiple registers for storing data for executing the instructions, wherein each of the clusters is associated with corresponding one of the register sub-files so that an instruction dispatched to a cluster is executed by accessing registers in a register
- 10 sub-file associated with the cluster to which the instruction is dispatched, a register-renaming unit for renaming target registers in an instruction with registers in a register sub-file associated with a cluster to which the instruction is dispatched, and issue-queue units each of which is associated with a corresponding one of the clusters, wherein an issue-queue unit holds instruction
- 15 renamed by the register-renaming unit until the renamed instruction is issued to be executed in a cluster associated with the issue-queue unit.